

# Materials Management

# Introduction

Materials that must be managed	
Material Inputs	Raw materials, supplies, component parts.
Work-in-progress	Unfinished goods
Finished goods	Not yet delivered
Spare parts	For machinery and equipment

# Materials Management involves...

- Receiving materials.
- Safely storing materials.
- Identifying ongoing materials requirements by ensuring timely purchasing and by forecasting.
- Reducing holdings of surplus stock.
- Controlling the release of materials into the production process.

# Materials Planning

- Overall plan of all activities undertaken to combine resources to create goods or services.
- Two very important documents contribute to this plan:
  - Master Production Schedule (MPS)
  - Materials Requirement Plan (MRP)

# Master Production Schedule

- A general guide to operations, used as a starting point to plan materials needs in detail.
- A MPS covers:
  - What goods and services are to be produced
  - The volume to be produced
  - The production methods to be used
  - When production is to take place
  - Where production is to take place
  - The staff needed to do the work.

# Materials Requirement Planning

- Involves developing an itemised list of all materials involved in production to meet specified orders.
- This must consider:
  - Specific materials required
  - Lead time required by suppliers
  - Exact quantities
  - Amount of stock on hand
  - Purchasing procedures
  - Best times to order and delivery times.

# Inventory Control

- Inventory is the goods and materials held as stock by an organisation.
- Inventory control ensures that costs are minimised and that the operations system has access to the right amount of inputs when required.
- Modern organisations use bar coding and computerised stock records to control inventory.

# Just In Time (JIT)



# Supply Chain Management

- Supply chain is the range of suppliers from which the organisation purchases materials and resources.
- The supply chain needs to be well managed because an operations system depends on the inputs.

Supply Chain Issue	Consequence
Materials not on hand	Production slowed or stopped
Materials of poor quality	Quality of output jeopardised
Quantity of materials unavailable	Demand cannot be met, consumers purchase competitor product.